

CLAIMS:

1. An emergency lighting device comprising an illumination lamp for illuminating a surrounding area, an energy storage unit for providing electrical energy for powering the lamp, a charging arrangement for charging the energy storage unit, and control means for activating the lamp and for controlling the charging, wherein the energy storage
5 unit essentially comprises an ultra-capacitor for storing the electrical energy.
2. The emergency lighting device according to claim 1, further comprising a test circuit for measuring an impedance of the capacitor in a charged or discharged condition of the ultra-capacitor.
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3. The emergency lighting device according to claim 2, wherein the impedance comprises a leakage impedance.
4. The emergency lighting device according to claim 2 or 3, wherein the
15 impedance comprises an alternating current impedance, the test circuit for applying an alternating voltage to the ultra-capacitor and measuring an alternating current flowing in response thereto through the ultra-capacitor, or vice versa.
5. The emergency lighting device according to any of the preceding claims,
20 wherein the charging arrangement is arranged for applying an essentially fixed voltage or current to the ultra-capacitor.
6. The emergency lighting device according to any the preceding claims, wherein the charging arrangement comprises a switching means for alternately connecting a
25 switching node with a supply node and a ground node, a first branch being connected to the charging node, the first branch comprising a series connection of at least a capacitor and an inductive element, the first branch for providing electrical energy to a rectifier which is connectable to the ultra-capacitor for charging the ultra-capacitor.

7. The emergency lighting device according to claim 6, wherein the inductive element comprises a transformer, the first branch being connected to the ground node via a first port of the transformer, a second port of the transformer being connected to the rectifier.
- 5 8. The emergency lighting device according to claim 6 or 7, the charging arrangement further comprising a charging control device for controlling the charging, the charging control device affecting a frequency of a switching of the switching device for affecting a current in the first branch.
- 10 9. The emergency lighting device according to claim 8, wherein the charging control device is arranged for keeping a duty cycle of the frequency of the switching at an essentially fixed rate.
10. The emergency lighting device according to any of claims 6 to 9, wherein the
15 control device is arranged for sensing a voltage of the ultra-capacitor when the charging of the capacitor has been stopped.
11. An emergency lighting system comprising a plurality of emergency lighting devices according to any of claim 1 to 10.